AP28Z0RA

Air Conditioner
user & installation manual

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SAMSUNG

ⒺⓈⒻⓅⒶ DB98-32402A(4)

features of your new air conditioner

- **Stay refreshed with Comfort care**

  Refreshing : Your air conditioner will change the operation mode to Cool, Dry and Fan mode depending on the surrounding air to provide refreshing environment.

  Quick : Surround swing function helps quickly cool down the entire house.

  Healthy : You do not have to worry about getting cold since the cooled air does not directly contact people around the area.

- **good'sleep function**

  good'sleep function allows you to set a comfortable sleep temperature while saving energy and having sound sleep.

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For easy future reference, write the model and serial number down. You will find your model number on the bottom right side of the air conditioner.

Model #_____

Serial #_____

safety information

To prevent electric shock, disconnect the power before servicing, cleaning, and installing the air conditioner.

SAFETY INFORMATION

Before using your new air conditioner, please read this manual thoroughly to ensure that you know how to safely and efficiently operate the extensive features and functions of your new appliance.

Because the following operating instructions cover various models, the characteristics of your air conditioner may differ slightly from those described in this manual. If you have any questions, call your nearest contact center or find help and information online at www.samsung.com.

Important safety symbols and precautions:

WARNING	Hazards or unsafe practices that may result in **severe personal injury or death.**
CAUTION	Hazards or unsafe practices that may result in **minor personal injury or property damage.**
CAUTION	To reduce the risk of fire, explosion, electric shock, or personal injury when using your air conditioner, follow these basic safety precautions:

	Do NOT attempt.
	Do NOT disassemble.
	Do NOT touch.
	Follow directions carefully.
	Unplug the power plug from the wall socket.
	Make sure the machine is grounded to prevent electric shock.
	Call the contact center for help.
	Note.

These warning signs are here to prevent injury to you and others.
Please follow them carefully.
After reading this section, keep it in a safe place for future reference.

WARNING SEVERE WARNING SIGNS

Do not place the air conditioner near hazardous substances or equipment that releases free flames to avoid fire, explosions or injuries.

- Potential risk of fire hazard or explosion.

Do not install the outdoor unit at an unstable place or elevated surface where there is potential risk of falling.

- If the outdoor unit falls, it may cause personal injury or loss of property.

Failure or damage may occur if any changes or modification that is not stated in the manual was performed. In this case, user will be responsible for the repair expenses.

Install the air conditioner away from direct exposure to sunlight, heating apparatus, and humid places.

- Hang curtains on windows to boost cooling efficiency and to avoid the risk of electric shock.

Do not cut the power plug and connect to a different power cable.

Do not yank the power cable and touch the power plug with hands.

- Potential risk of fire or electric shock.

Never use a damaged or dusted power plug, power cable, or loosened power receptacle.

- Potential risk of fire or electric shock.

Install an exclusive circuit breaker and short-circuit breaker for the air conditioner.

- Potential risk of electric shock or fire.

Do not insert anything such as fingers or branches into the air conditioner vents while the air conditioner is running.

- Keep the children away from the air conditioner to prevent them from putting their finger on the air conditioner. Potential risk of personal injury.

Ensure no water gets into the air conditioner.

- Potential risk or electric shock.
- If the water gets into the air conditioner, stop and unplug the power source immediately.

Turn off the air conditioner using the provided remote controller or control accessory (if provided). Do not unplug to turn off the unit (unless there is an immediate danger).

Do not run the air conditioner for an extended period of time in a room with the door closed or with babies, elderly or disabled people.

- Open the door or windows to ventilate your room at least once an hour to prevent oxygen shortage.

The air conditioner is composed of moving parts. Keep children away from the unit to avoid physical injury.

Make sure that children take precautions against access to the air conditioner and they do not play with the unit.

Do not clean the interior of air conditioner on your own.

- You may damage the parts which can cause electric shock or fire.
- Consult contact center for cleaning the interior of the air conditioner.

Do not connect the air conditioner with heating apparatus or attempt to disassemble, remodel or repair it yourself.

- Potential risk of malfunction, electric shock or fire. If repairs are needed, consult the contact center.

Consult the place of purchase or contact center to install, reinstall or disassemble the air conditioner.

- Improper installation carries a risk of unit malfunction, water leakage, electric shock or fire.
- If installing in specialty areas, such as a factory complex or saline coastal area, consult the place of purchase or contact center for specific installation details.
- The units must be installed according to distances declared, in order to permit accessibility from each side, either to guarantee correct operation of maintenance or repairing products. The unit's parts must be reachable and removable completely under safety condition (for people or things).

Consult a dealer regarding the appropriate measures to prevent the allowable concentration from being exceeded.

- If the refrigerant leaks, and cause the concentration limit to be exceeded, hazards due to lack of oxygen in the room may result.

If the indoor unit gets wet, turn the power off immediately and call your nearest contact center.

- Potential risk of fire or electric shock.

Always make sure that the power supply is compliant with current safety standards. Always install the air conditioner in compliance with current local safety standards.

Verify that the voltage and frequency of the power supply comply with the specifications and that the installed power is sufficient to ensure the operation of any other domestic appliance connected to the same electric lines.

Use a rated circuit breaker only.

- Never use steel wires or copper wires as a circuit breaker. It may cause fire or unit malfunctions.

Do not put undue stress or place heavy object on the power cable.

Do not bend the power cable excessively.

- Potential risk of fire or electric shock.

To protect the product from water and possible shock, you should keep the power cable and the connection cord of the indoor and outdoor units in the protection tube.

Disconnect the air conditioner from power supply before it is repaired or disassembled.

Clean the air conditioner after the inner fan stops operating.

- Potential risk of injury or electric shock.

WARNING SEVERE WARNING SIGNS (CONT'D)

Use a receptacle that has a ground terminal. The receptacle must be used exclusively for the air conditioner.

- Improper electrical grounding may cause electric shock or fire.

Be sure to ground the unit. Do not connect the ground wire to gas or water pipes, lighting rods, or telephone grounding lines.

- If the unit is not properly grounded, electric shock may result.

If you smell burning plastic, hear strange sounds, or see smoke coming from the unit, unplug the air conditioner immediately and call a contact center.

- Potential risk of fire or electric shock.

CAUTION CAUTION SIGNS

Do not block or place items in front of the air conditioner. Do not step, hang onto, or place heavy items on the air conditioner.

- Potential risk of personal injury.

If failure or damage occurs on the conditions of improper use not followed by the manual, there will be an extra labor charge for installing and construction.

- Potential risk of malfunction, electric shock or fire if repairs or installations are attempted by a non-qualified service technician.

Do not spray flammable gases such as insecticide near the air conditioner.

- Potential risk of electric shock, fire or unit malfunction.

Do not open the front panel during operation.

- Potential risk of electric shock or unit malfunction.

Cool air should not flow directly towards people, pets, and plants.

- It is harmful to your health, pets, and plants.

Do not drink drain water coming out of the air conditioner.

- Potential risk of health hazard.

Do not allow children to climb on the air conditioner.

Do not use the air conditioner as a cooling precision instrument for food, pets, plants, cosmetics or machinery.

Do not pull or give excessive shock to the air conditioner.

- Potential risk of fire, or unit malfunction and there are risk of personal injury because unit may fall down.

Do not spray water directly on the air conditioner or use benzene, thinner or alcohol to clean the surface of the unit.

- Potential risk of electric shock or fire.
- Potential risk of damage to the air conditioner.

Do not place any objects, especially containers with liquid.

Do not touch the pipe connected to the air conditioner.

Install the indoor unit away from lighting apparatus using the ballast.

- If you use the wireless remote controller, reception error may occur due to the ballast of the lighting apparatus.

Install the outdoor unit where operating noise and vibration will not disturb your neighbor and in a well-ventilated area with no obstacle.

- Potential risk of malfunction.
- Operating noise may disturb your neighbor.

Make sure that there are no obstacles or covers that block the air conditioner.

Allow sufficient space for air circulation.

- Insufficient ventilation may result in poor performance.

If the power cable is damaged, the manufacturer or a qualified service technician must replace it.

If a power outage occurs while the air conditioner is working, turn off the power source immediately.

Max current is measured according to IEC standard for safety and current is measured according to ISO standard for energy efficiency.

Check for damage on delivery. If damaged, do not install the air conditioner and call the place of purchase immediately.

Keep indoor temperatures stable and not extremely cold, especially where there are children, elderly or disabled people.

The packaging material and used batteries of the remote controller (optional) must be disposed of in accordance with the national standards.

The refrigerant used in the air conditioner must be treated as chemical waste. Dispose the refrigerant following national standards.

Have a qualified service technician install the air conditioner and perform a trial operation.

Firmly connect the drain hose to the air conditioner for proper water drainage.

Check for damages on the outdoor unit installation pad at least once a year.

- Potential risk of personal injury or property loss.

When using a wireless remote controller, the distance should not be more than 7 meters from the air conditioner.

If the remote controller is not used for a long period of time, remove the batteries to prevent leakage of electrolyte.

When cleaning the outdoor unit, touch the heat exchanger radiator fins with extreme care.

- Wearing thick gloves can protect your hands.

Make sure that the condensed water dripping from the drain hose runs out properly and safely.

The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety: Young children should be supervised to ensure that they do not play with the appliance.

CAUTION SIGNS (CONT'D)

Inspect the condition, electric connections, pipes and external case of the air conditioner regularly by a qualified service technician.

Do not open doors and windows in the room being cooled during operation unless necessary.

Do not block the air conditioner vents. If objects block the air flow, it may cause unit malfunction or poor performance.

The air conditioner should be used only for the applications for which it has been designed: the indoor unit is not suitable to be installed in areas used for laundry.

Ensure the off-on and protection switches are properly installed.

Do not use the air conditioner if damaged. If problems occur, immediately stop operation and disconnect the plug from the power supply.

If the air conditioner will not be used for an extended period of time (for example, over several months), unplug the power from the wall.

Call the place of purchase or a contact center if repairs are needed.

- Potential risk of fire or electric shock if disassembly or repairs are attempted by a non-qualified service technician.

contents

VIEWING YOUR AIR CONDITIONER 10

10 Checking the indoor unit and display
10 Main parts
11 Digital display and control panel
11 Opening the front panel
12 Checking the remote controller
13 Remote controller display
13 Using the remote controller
13 Inserting the batteries

OPERATING BASIC FUNCTION 14

14 Turning the air conditioner on and off
14 Selecting operation mode
14 Comfort care
15 Cool
16 Dry
17 Fan
18 Using the Surround Swing
20 Using the Air Swing

USING ADVANCED FUNCTIONS 21

21 Using the Turbo function
22 Using the Energy Saver function
23 Using the Evaporator Clean function
24 Setting timer
24 On timer
25 Off timer
26 Combining On timer and Off timer
27 good' sleep mode
29 Locking the control panel
29 Using the air conditioner with the control panel

CLEANING AND MAINTAINING THE AIR CONDITIONER 30

30 Cleaning the exterior
31 Cleaning the filter
31 Air filter
32 Maintaining your air conditioner
32 Periodical checks
33 Internal protections via the unit control system
33 Storing the remote controller

APPENDIX 34

34 Troubleshooting
35 Operation ranges

INSTALLATION PART 36

ENGLISH

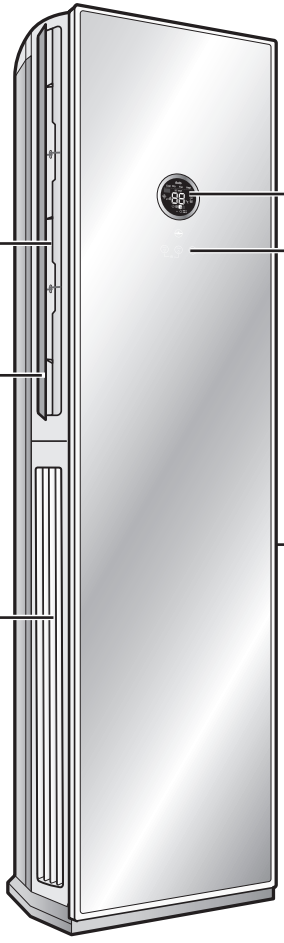
viewing your air conditioner

Congratulations on the purchase of the air conditioner. We hope you enjoy the features of your air conditioner and stay cool with optimal efficiency.
Please read the manual to get started and to make the best use of the air conditioner.

CHECKING THE INDOOR UNIT AND DISPLAY

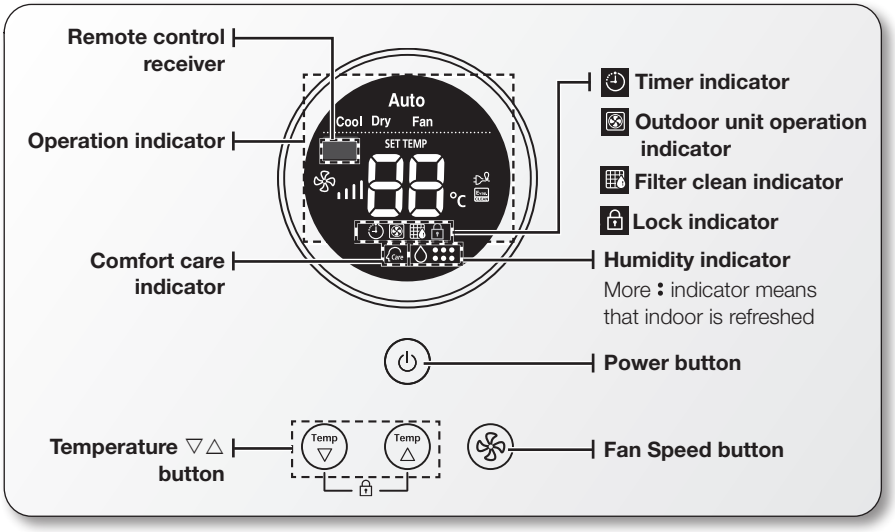
Carefully unpack your air conditioner and check the indoor unit to make sure it is not damaged.

Main parts



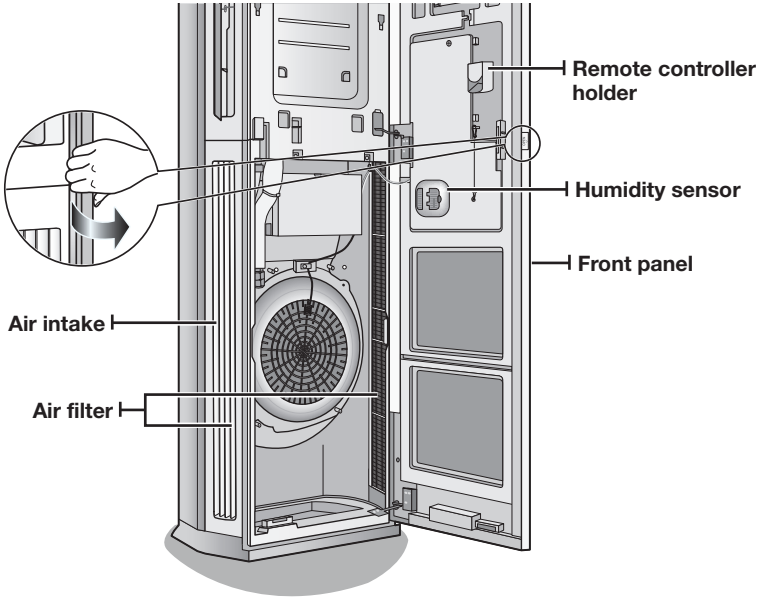
Your air conditioner may slightly look different from illustration shown above depending on your model.

Digital display and control panel



OPENING THE FRONT PANEL

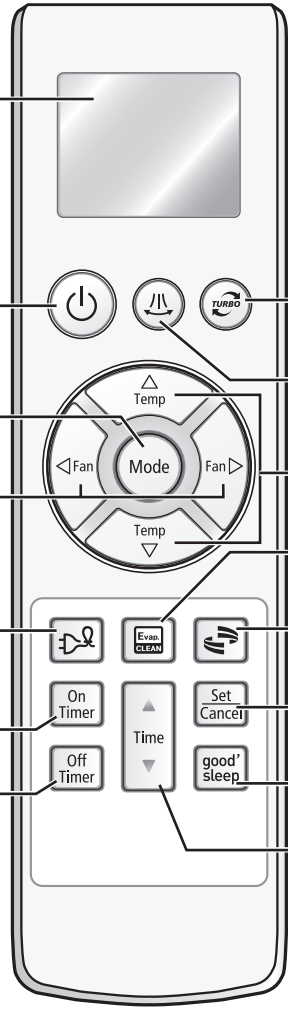
Hold the left part of the front panel and pull to open it.



CAUTION Do not open the front panel during operation. There is risk of malfunction or electric shock.

CHECKING THE REMOTE CONTROLLER

You can activate the air conditioner by pointing the remote controller away from it. When using the remote controller, always point it directly at the air conditioner.



Remote controller display

Power ⏻
Turn on/off the air conditioner.

Mode
Set one of the operating modes. (See pages 14~17 for instructions.)

Fan ◁ ▷
Adjust how much air flows through the air conditioner with the 4 different fan speeds such as Auto/Low/Medium/High.

Energy Saver
Less energy usage makes your space cool between the temperature range of 18ºC~30ºC.

On Timer
Set the On Timer on.

Off Timer
Set the Off Timer on.

Turbo TURBO
Operate in auto fan speed to cool quickly.

Air swing
Activate/Deactivate air flow blade movement automatically up and down.

Temp △▽
Increase/Decrease the temperature by 1℃.

Evap.CLEAN
Evaporator clean function – Dry inside of the indoor unit to get rid of odor.

Surround swing
Set the air flow to cool effectively according to the surrounding

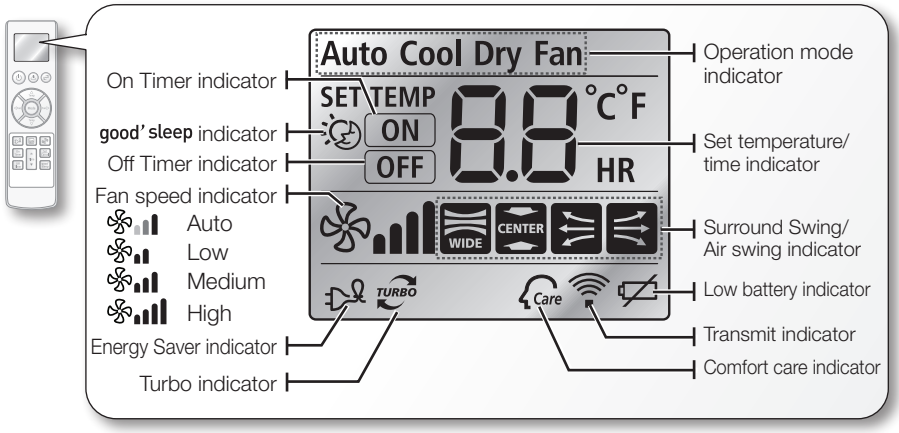
Set/Cancel
Set/Cancel the timer/ **good' sleep** function.

good' sleep
Set the **good' sleep** mode on.

Time ▲▼
Adjust the time for timer/ **good' sleep** function.

When you press the button, a short ring will sound and a transmit indicator(📶) appears on the remote controller display.

Remote controller display

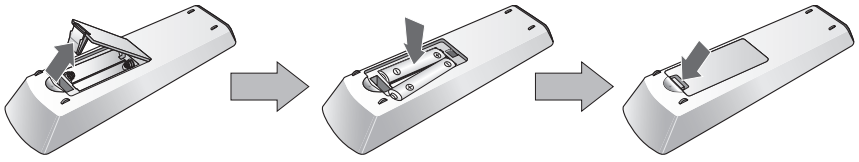


Using the remote controller

- Point the remote controller towards the remote controller receiver of the indoor unit (see page 10 to find the location of remote control receiver).
- When you properly press the button on the remote controller, you will hear ring sound from the indoor unit.

- The signal may not be received well of electronic lighting style fluorescent lamps such as inverter fluorescent lamps are in the same space.
- If other electrical products operate by the remote controller, call your nearest contact center.

Installing the batteries



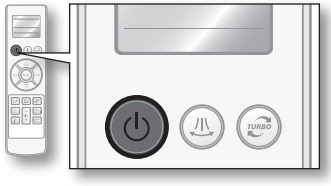
1. **Push the lever as arrow indicates on the rear side of the remote controller and pull up.**
2. **Insert two AAA batteries.**
   Check and match the "+" and "-" signs accordingly. Make sure you have inserted the batteries in correct position.
3. **Close the cover by place it back to its original position.**
   You should hear click sound when the cover is locked properly.

TURNING THE AIR CONDITIONER ON AND OFF

Press the **Power** ⏻ button on the remote controller.

You will hear a ringing sound and the air flow blade will open automatically when the air conditioner is properly on.
The air conditioner will operate in the most recent operation mode used or Comfort care mode.

When you turn off the air conditioner, air flow blade will be closed.



Turning on/off your air conditioner without the remote controller.

You can operate your air conditioner by pressing the **Power** ⏻ button on the indoor unit control panel.

SELECTING OPERATION MODE

Comfort care

In Comfort care mode, the air conditioner will automatically set the temperature and fan speed depending on the room temperature detected by the room temperature sensor and humidity sensor.

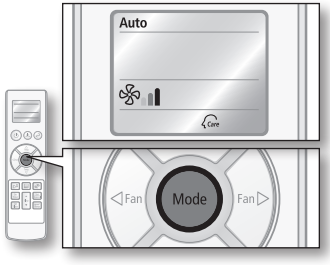
1. Turn on the air conditioner.

   Press the **Power** ⏻ button on the remote controller.

2. Set the operating mode.

   Press the **Mode** button on the remote controller until Comfort care mode and Auto fan speed indicator appear on the remote controller display.

   The air conditioner will automatically set the operation mode depends on the room temperature.



Each time you press the **Mode** button, the mode will change in order of Comfort care, Cool, Dry and Fan.

- Operation mode will change to Cool mode if you press the **Temp** △ or ▽ button and Fan speed cannot be adjusted while using this mode.
- While the air conditioner is already operating in another mode, press the **Mode** button until Comfort care mode indicator appears on the remote controller display.
- When you are using the remote controller, make sure correct indicator which matches your selection appears on the remote controller display.
- Comfort care will initially operate in Cool mode for first 10 minutes and change operation mode depending on the indoor temperature and humidity.
  - Digital display on the indoor unit will display Comfort care (Cool), Comfort care (Dry) or Comfort care (Fan).

Cool

In Cool mode, the air conditioner will cool your room. You can adjust the temperature and the fan speed to feel cooler in hot season.

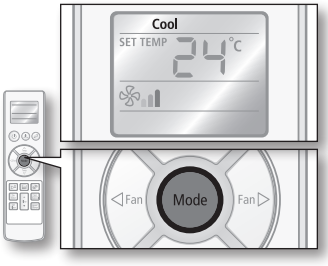
1. Turn on the air conditioner.

Press the **Power** ⏻ button on the remote controller.

2. Set the operation mode.

Press the **Mode** button on the remote controller until Cool mode indicator appears on the remote controller display.

The air conditioner operates in Cool mode and it will lower the temperature in your room.



Each time you press the **Mode** button, the mode will change in order of Comfort care, Cool, Dry and Fan.

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3. Set the temperature.

Press the **Temp** △ or ▽ button on the remote controller to increase or decrease the desired temperature.

You can set the desired temperature between the range of 18℃~30℃.

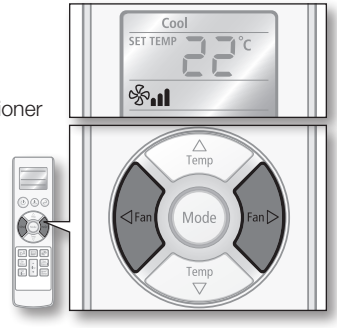
You can increase/decrease the temperature by 1℃.

---

4. Set the fan speed.

Press the **Fan** ◁ or ▷ button on the remote controller to set the desired fan speed.

If room temperature reaches desired value, the air conditioner will shut off cooling for a while and just the fan runs.



Each time you press the **Fan** ◁ or ▷ button, fan speed will change in order of Auto, Low, Medium and High.

- While you are using the remote controller, make sure correct indicator which matches your selection appears on the remote controller display.
- Air flow can be adjusted manually (see pages 18~20 for instructions).
- If current outside temperatures are much higher than the selected indoor temperature, it may take time to bring the inner temperature to the desired coolness.
- If you operate the air conditioner right after stopping the cooling operation or the temperature reaches to the desired temperature, cool air will not come out around 3 minutes for compressor protection.

SELECTING OPERATION MODE

Dry

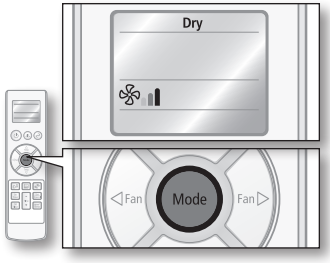
The air conditioner in Dry mode acts like a dehumidifier by removing moisture from the indoor air. Dry mode makes the air feel refreshing in a humid climate.

1. Turn on the air conditioner.

   Press the **Power** ⏻ button on the remote controller.

2. Set the operation mode.

   Press the **Mode** button on the remote controller until Dry mode and Auto fan speed indicator appear on the remote controller display.



Each time you press the **Mode** button, the mode will change in order of Comfort care, Cool, Dry and Fan.

- While you are using the remote controller, make sure correct indicator which matches your selection appears on the remote controller display.
- Temperature/Fan speed cannot be adjusted while using this mode.

Fan

Fan mode can be selected to ventilate your room. Fan mode will be helpful to refresh the stale air in your room.

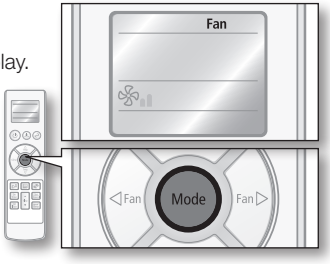
1. Turn on the air conditioner.

Press the **Power** ⏻ button on the remote controller.

2. Set the operation mode.

Press the **Mode** button on the remote controller until Fan mode indicator appears on the remote controller display.

The air conditioner operates in Fan mode and automatically adjusts the temperature according to the current room temperature.



Each time you press the **Mode** button, the mode will change in order of Comfort care, Cool, Dry and Fan.

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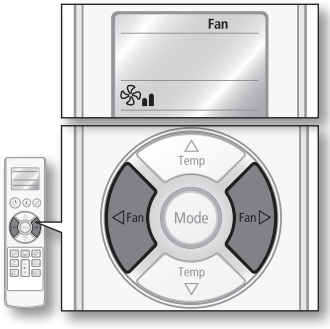
3. Set the fan speed.

Press the **Fan** ◁ or ▷ button on the remote controller to set the desired fan speed.



Each time you press the **Fan** ◁ or ▷ button, fan speed will change in order of Low, Medium and High.

- While you are using the remote controller, make sure correct indicator which matches your selection appears on the remote controller display.
- Air flow can be adjusted manually (see pages 18~20 for instructions).

USING THE SURROUND SWING

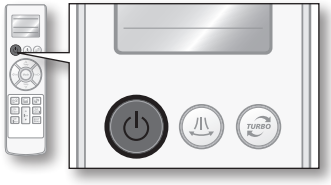
You can adjust the air flow direction according to the surrounding environment.
Select desired Surround Swing that suits your needs.

1. Turn on the air conditioner.

   Press the **Power** ⏻ button

2. Set the operating mode.

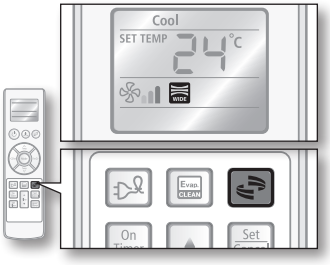
   Press the **Mode** button on the remote controller until Cool/Fan indicator appears on the remote controller display.



Each time you press the **Mode** button, the mode will change in order of Comfort care, Cool, Dry and Fan.

3. Select the Surround Swing.

Press the **Surround Swing** button to select the following desired Surround Swing mode:



Wide
It is efficient to cool larger area such as living room.
Use Wide Surround Swing when there are lots of people.

Center
Cool air will be come out intensively from the center.
Use Center Surround Swing if you have just got home from hot outdoors.
Air flow blade will still move time to time to spread cool air throughout the room.

Left
Cool air will be come out intensively from the left side of the air conditioner.
Use Left Surround Swing if you want the cool the area on the left side of the air conditioner.

Right
Cool air will be come out intensively from the right side of the air conditioner.
Use Right Surround Swing if you want the cool the area on the right side of the air conditioner.

- Surround Swing is not available during Comfort care/Dry mode.
- Surround Swing will be canceled automatically if you select Air Swing.

USING THE AIR SWING

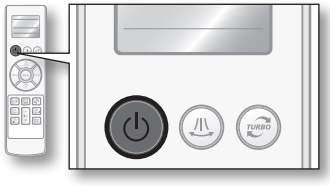
You can adjust the air flow direction evenly to left and right for more efficient and faster cooling.

1. Turn on the air conditioner.

Press the **Power** ⏻ button.

2. Set the operating mode.

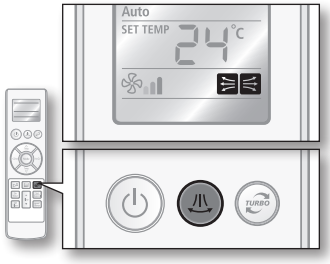
Press the **Mode** button on the remote controller until Cool/Fan indicator appears on the remote controller display.



Each time you press the **Mode** button, the mode will change in order of Comfort care, Cool, Dry and Fan.

3. Select the Air Swing.

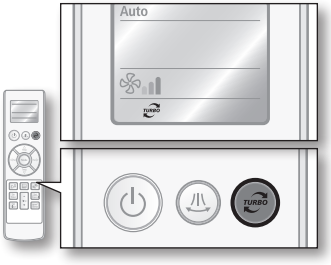
Press the **Air Swing** button.
Air blades on the left and right side of the air conditioner will begin to move.



- Air Swing is not available during Comfort care/Dry mode.
- Air Swing will be canceled automatically if you select Surround Swing.

USING THE TURBO FUNCTION

Turbo function will be helpful to cool your room quickly and effectively by operating at the maximum fan speed for 30 minutes.



1. Turn on the air conditioner.

   Press the **Power** ⏻ button on the remote controller.

2. Set the operating mode.

   Press the **Turbo** TURBO button on the remote controller once. Turbo indicator will appear on the remote controller display.

   The air conditioner operates in Auto fan speed and automatically adjusts the temperature according to the current room temperature.
   The unit operates for 30 minutes and then operates in last used mode.

Turbo function is only available in Cool mode.

To deactivate Turbo function

1. Press the **Turbo** TURBO button on the remote controller twice while Turbo function is on.

   The air conditioner will operate in last used mode.

- While you are using the remote controller, make sure corresponding indicator appears on the remote controller display.
- Temperature/Fan speed cannot be adjusted while using this function.
- Air flow can be adjusted manually (see pages 18~20 for instructions).
- If you press the **Mode** button while the Turbo function is on, it will cancel the function.

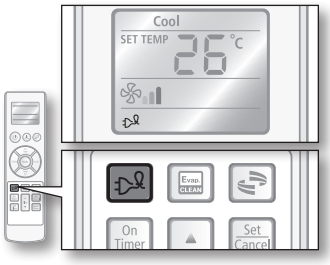
USING THE ENERGY SAVER FUNCTION

This function will set the temperature range limit to help you save energy while the air conditioner is operating in Cool mode.

1. Press the **Energy Saver** button on the remote controller while the air conditioner is operating in Cool mode.

   Energy Saver indicator appears automatically on the remote controller display.

   If the current set temperature is lower than 24ºC, it will automatically raise to 24ºC.



- Energy Saving function is only available in Cool mode.
- When Energy Saving function is activated, temperature range will be limited to 18ºC~30ºC.
- If the desired temperature is lower than 24ºC, press the **Temp** △ or ▽ button to set the desired temperature.
- Temperature/Fan speed can also be adjusted. (See step 3~4 on page 15 for instructions.)
- Air flow can be adjusted manually. (See pages 18~20 for instructions.)
- If you press the **Mode** button while the Energy Saver function is on, it will cancel the function.

To deactivate the Energy Saver function

1. Press the **Energy Saver** button on the remote controller while Energy Saver function is on.

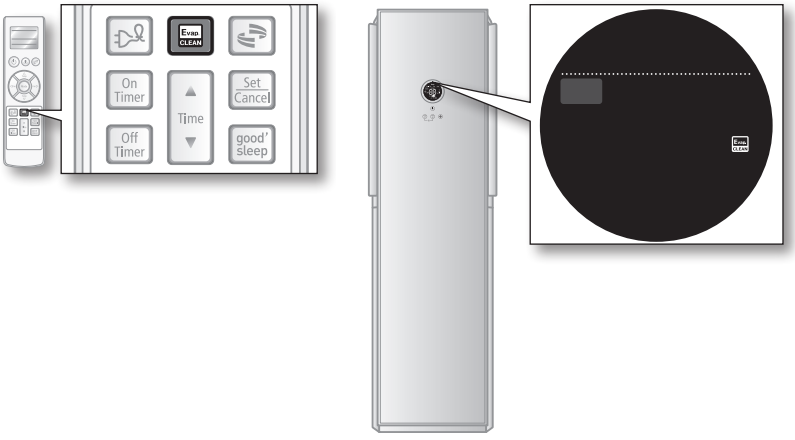
   Energy Saving function you set will be canceled and Energy Saving indicator will disappear on the remote controller display.

USING THE EVAPORATOR CLEAN FUNCTION

Evaporator clean function will prevent from growing mold by eliminating the moisture inside of the indoor unit. Your indoor unit evaporates the moisture inside of the unit. Activate this function to provide you with more clean and healthier air.

1. Press the **Evap. CLEAN** button.

   The Evaporator clean indicator appears only on the indoor unit display as.
   When the air conditioner is turned on, the Evaporator clean function runs after the air conditioner stops operating.



- When the air conditioner is turned off,
  The Evaporator clean indicator on the indoor unit display appears and the Evaporator clean function will run for 3 minutes.
- When the air conditioner is turned on,
  The Evaporator clean indicator on the indoor unit display appears and the Evaporator clean function will run for 3 minutes after the air conditioner stops operating.

To cancel the Evaporator clean function

1. Press the **Evap. CLEAN** button on the remote controller while the Evaporator clean function is on.
   Evaporator clean function will be canceled and Evaporator clean indicator will disappear on the remote controller display.

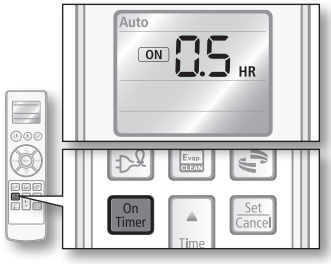
Evaporator clean indicator only appears on the indoor unit.

SETTING TIMER

This advanced Timer function allows you to turn on/off your air conditioner automatically even when you are away. Simply set the time and your air conditioner will turn on/off automatically.

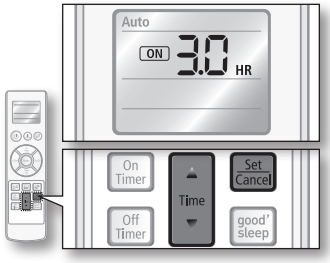
On Timer

This function allows you to turn on the air conditioner automatically within the time range of 24 hours.
On timer is available while your air conditioner is off.



1. Press the **On Timer** button on the remote controller.

   On timer indicator blinks on the remote controller display.



2. Set the time you want the air conditioner to turn on automatically.

   Press the **Time** ▲ or ▼ button on the remote controller to change the time setting while On timer indicator is blinking.

   You can set the time up to 24 hours, increasing in 30 minute unit up to first 3 hours and in hourly unit after first 3 hours.

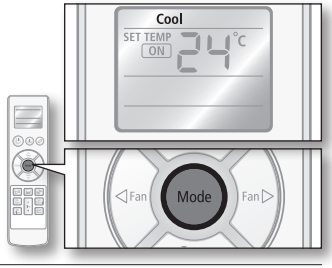
3. Press the **Set/Cancel** button on the remote controller to active it on.

   The remote controller display will show the hour(s) you have set for 3 seconds and set desired temperature will display.
   The air conditioner will operate automatically at set time and then On timer indicator stops blinking and stays on. If On timer is not set within 10 seconds, the air conditioner will end setting.

4. Set the operation mode.

   Press the **Mode** button on the remote controller until the desired mode appears on the remote controller display.

   The air conditioner will operate in the mode you set.



On timer function is available in Comfort care/Cool/Dry/Fan mode.

- Temperature can also be adjusted (see step 3 on page 15 for instructions).
- All the indicators other than On Timer indicator will disappear approximately after 10 seconds after the setup.
- When the On Timer setting is done, you can press the **On Timer** button again to change the preset time. Press the **Time** ▲ or ▼ button to change time setting and then press the **Set/Cancel** button to active it on.

To deactivate the On Timer

1. Press the **Set/Cancel** button on the remote controller while On Timer is on.

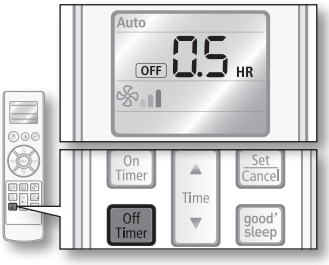
   On timer you set will be canceled and On timer indicator will disappear.

Off Timer

This function allows you to turn off the air conditioner automatically within the time range of 24 hours. Off timer is available while your air conditioner is on.

1. Press the **Off Timer** button on the remote controller.

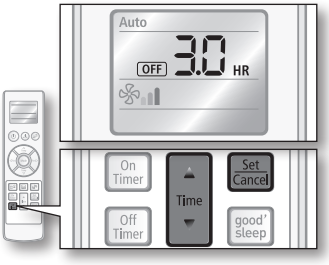
Off timer indicator blinks on the remote controller display.



2. Set the time you want the air conditioner to turn off automatically.

Press the **Time** ▲ or ▼ button on the remote controller to change the time setting while Off timer indicator is blinking.

You can set the time up to 24 hours, increasing in 30 minute unit up to first 3 hours and in hourly unit after first 3 hours.



3. Press the **Set/Cancel** button on the remote controller to active it on.

The remote controller display will show the hour(s) you have set for 3 seconds and set desired temperature will display. The air conditioner will operate automatically at set time and then Off timer indicator stops blinking and stays on. If Off timer is not set within 10 seconds, the air conditioner will end setting.

- When the Off Timer setting is done, you can press the **Off Timer** button again to change the preset time.

  Press the **Time** ▲ or ▼ button to change the time setting and then press the **Set/Cancel** button to active it on.
- You can combine Off timer function with On timer function to turn on and then off the air conditioner at the desired time (see page 26 for instructions).

To deactivate the Off Timer

1. Press the **Set/Cancel** button on the remote controller while Off Timer is on.

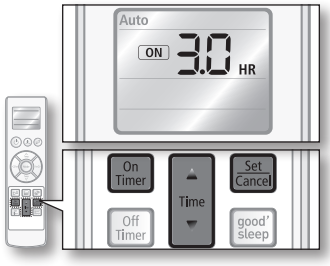
Off timer you set will be canceled and Off timer indicator will disappear.

SETTING TIMER

Combining On Timer and Off Timer

You can combine the On timer and Off timer together for more convenient use of the timer function.

1. Set the On timer.
Press the **On Timer** button.
Set the time with **Time** ▲ or ▼ button.
Press **Set/Cancel** button to activate the On timer.



See page 24 for more detail instructions on setting On timer.

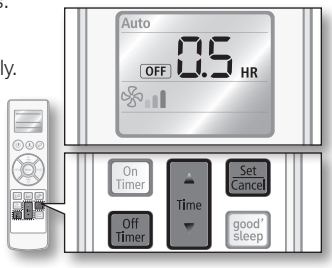
2. Set the Off timer.
Press the **Off Timer** button.
Set the time with **Time** ▲ or ▼ button.
Press **Set/Cancel** button to activate the Off timer.

When you set the time, there can be two possible options:

Preset time of On Timer is shorter than Off Timer

The air conditioner will turn on and then off automatically.
Set up should be done while the air conditioner is off.

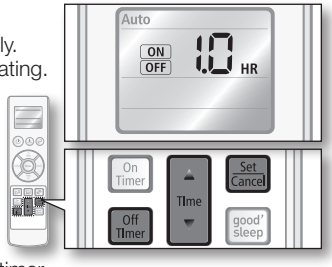
ex.) If the preset time of the On Timer is
3 hours and the Off Timer is 5 hours,
the air conditioner will turn on after 3 hours
from the moment you have set the timer.
Your air conditioner will remain on for
2 hours and then turn off automatically.



Preset time of On Timer is longer than Off Timer

The air conditioner will turn off and then on automatically.
Set up should be done while the air conditioner is operating.

ex.) If the preset time of the On Timer is
3 hours and the Off Timer is 1 hour,
the air conditioner will turn off an hour after
the moment you have set the timer.
Your air conditioner will remain off for
2 hours and then it will turn on automatically.



See page 25 for more detail instructions on setting Off timer.

To deactivate the timer combination

1. Press the **Set/Cancel** button on the remote controller while timer combination is on.

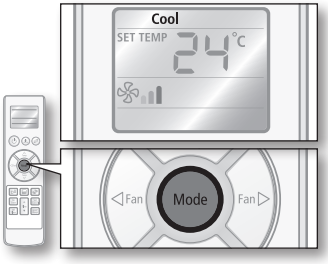
Both of the On and Off timer will be canceled and the indicators will disappear.

good' sleep mode

good' sleep mode allows you to set a comfortable sleep temperature while saving energy and having sound sleep. **good' sleep** mode can be set up when the air conditioner is on.

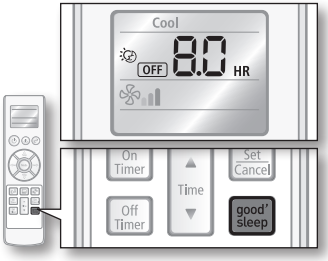
1. Set the operating mode.

Press the **Mode** button on the remote controller and select Comfort care, Cool, Dry or Fan mode.



2. Press the **good' sleep** button on the remote controller.

good' sleep indicator appears and Off timer indicator starts blinking on the remote controller display.



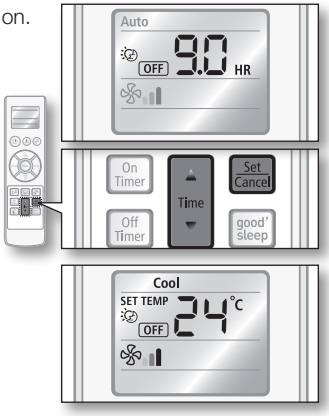
3. Set the length of time you want the air conditioner to stay on.

Default **good' sleep** time is set to 8 hours.
Press **Time** ▲ or ▼ button on the remote controller to change the time setting while Off timer indicator is blinking.

You can set the time up to 12 hours, increasing in 30 minute unit up to first 3 hours and in hourly unit after first 3 hours.

4. Press the **Set/Cancel** button on the remote controller to active it on.

The remote controller display will show the hour(s) you have set for 3 seconds and set desired temperature will display.
When the set time has elapsed, the air conditioner will automatically turn off and then **good' sleep** indicator disappears.
If **good' sleep** mode is not set within 10 seconds, the air conditioner will end setting.



- Temperature can be adjusted and the air conditioner automatically adjusts the Fan speed after setting **good' sleep** in Cool mode.
- If you press the **Mode** button while the **good' sleep** mode is on, it will cancel the mode.

ENGLISH

SETTING TIMER

Temperature changes in good' sleep mode

To prevent excessive cooling during sleep, the **good' sleep** mode automatically modifies the temperature setting in accordance with the time setting. Temperature and air current change according to the three stages; Fall asleep, Sound sleep, and Wake up from **good' sleep** mode, and then the air conditioner will automatically turn off when the set time has elapsed.

Three stage **good' sleep** prevents you from having difficulty sleeping in summer/winter night.

① **Fall asleep** : Eases you into sleep by dropping the temperature.
② **Sound sleep** : Relaxes your body and raises your temperature slightly.
③ **Wake up from good' sleep mode** :
Allows you to wake up from comfortable intermittent air and it makes you feel refresh.

- Set Off timer in **good' sleep** mode over 5 hours. You feel disturbed sleep if the **good' sleep** is set too short or long because the default is set to 8-hour-operation.
- If the **good' sleep** mode is set less than 4 hours, the operation will stop at the set time.
  If the **good' sleep** mode is set over 5 hours, it will run as Wake up stage for the last one hour before stop.
- Recommended set temperature is between 25℃~27℃ for cooling.

To deactivate good' sleep mode

1. Press the **Set/Cancel** button on the remote controller while **good' sleep** mode is on.
   good' sleep mode you set will be canceled and **good' sleep** indicator will disappear.

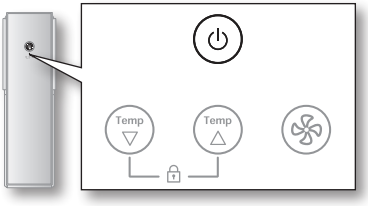
USING THE AIR CONDITIONER WITH THE CONTROL PANEL

You can control the air conditioner without the remote controller.

1. Press the **Power** ⏻ button on the indoor unit control panel.

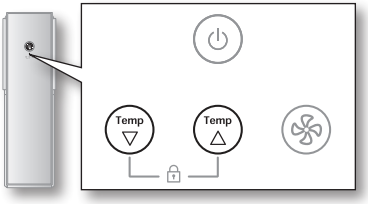
   You will hear a ringing sound and the air conditioner will operate in the most recent operation mode used or Comfort care mode.

   To turn off the air conditioner, press the **Power** ⏻ button again.



2. Press the **Temp** ▽ or △ button to adjust the temperature.

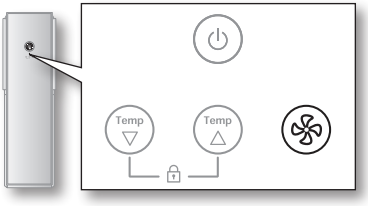
   If you press the **Temp** ▽ or △ button while Comfort care mode is on, operation mode will change to Cool mode.



You can increase/decrease the temperature by 1°C.

3. Press the **Fan Speed** button to adjust the fan speed.

   If you press the **Fan Speed** button while Comfort care mode is on, operation mode will change to Cool mode.



Each time you press **Fan Speed** button, fan speed will change in order of Auto, Low, Medium and High.

LOCKING THE CONTROL PANEL

You can lock the control panel on the indoor unit to prevent the children from playing with the air conditioner

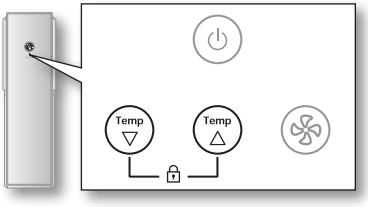
When the air conditioner is on or off

1. Press the **Temp** ▽ and △ button for 3 seconds.

   You will hear ring and the Lock indicator 🔒 will appear on the indoor unit display.

   Once Lock is set, you cannot control the air conditioner with the control panel but you can only control it with the remote controller.

   To Unlock the control panel, press the **Temp** ▽ and △ button again for 3 seconds.

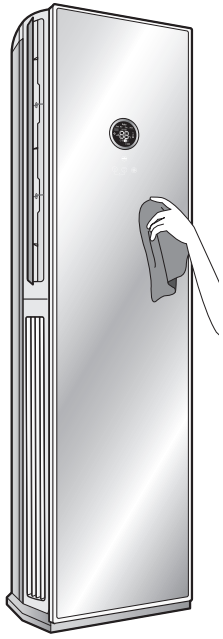


cleaning and maintaining the air conditioner

CAUTION **Make sure to turn off the circuit breaker when cleaning the air conditioner.**

CLEANING THE EXTERIOR

1. Wipe the surface of the unit with a slightly wet or dry cloth when needed.



CAUTION Do not use Benzene, Thinner or Clorox™.
They may damage the surface of the air conditioner and can create a risk of fire.

CLEANING THE FILTER

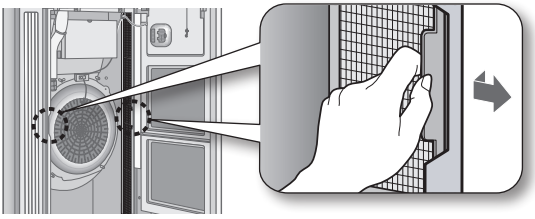
When cleaning the filter, make sure to turn off the circuit breaker. No special tools are needed to clean it.

Air filter

Washable air filter captures large particles from the air. The filter can be cleaned with a vacuum or by hand washing.

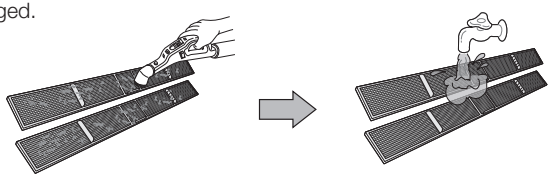
1. Open the front panel.

Hold the left part of the front panel and pull to open it. Then, release the Air filter from the hooks that holds the filter and pull it towards you.



2. Clean the Air filter with a vacuum cleaner or in running water.

If dust is too heavy, use detergent in warm water. Do not scrub the filter to hard since it may get damaged.



3. Dry the Air filter in a ventilated area.

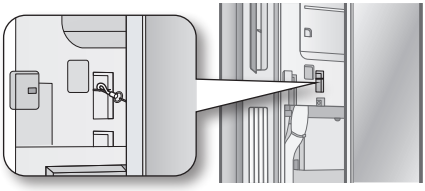
Do not dry the Air filter in a place with direct sunlight.

4. Insert the Air filter back in its original position.

5. Close the front panel.

- Clean the Air filter every two weeks. Cleaning term may differ on usage and environmental conditions.
- When the Filter clean indicator appears on the indoor unit display, check the Air filter and clean it if it is dirty.
- Filter clean indicator will disappear when you press the **Power** button.

CAUTION When you open the front panel, unhook the safety clips and remove the Air filter After cleaning, hook the safety clips before closing the front panel.



cleaning and maintaining the air conditioner

MAINTAINING YOUR AIR CONDITIONER

If the air conditioner will not be used for an extended period of time, dry the air conditioner to maintain it in best condition.

1. Dry the air conditioner thoroughly by operating in Fan mode for 3 to 4 hours and turn off the circuit breaker. There may be internal damage if moisture is left in components.
2. Before using the air conditioner again, dry the inner components of the air conditioner again by running in Fan mode for 3 to 4 hours. This helps remove odors which may have generated from dampness.

Periodical checks

Refer to the following chart to maintain the air conditioner properly.

Type	Description	Every 2 weeks	Every 3 months	Every 4 months	Once a year
Indoor unit	Clean the air filter (1)	●			
	Clean the bio filter (1)		●		
	Replace the deodorizing filter (1)				●
	Clean the condensate drain pan (2)				●
	Thoroughly clean the heat exchanger (2)				●
	Clean the condensate drain pipe (2)			●	
	Replace the remote controller batteries (1)				●
Outdoor unit	Clean the heat exchanger on the outside of the unit (2)			●	
	Clean the heat exchanger on the inside of the unit (2)				●
	Clean the electric components with jets of air (2)				●
	Verify that all the electric components are firmly tightened (2)				●
	Clean the fan (2)				●
	Verify that all the fan assembly is firmly tightened (2)				●
	Clean the condensate drain pan (2)				●

● : This check mark requires checking the indoor/outdoor unit periodically, following to the description to maintain the air conditioner properly.

The checks and maintenance operations described are essential to guarantee the efficiency of the air conditioner. The frequency of these operations varies according to the characteristics of the area, the amount of dust, etc.

(1) The described operations should be performed more frequently if the area of installation is very dusty.

(2) These operations must always be performed by qualified personnel. For more detailed information, see the Installation part.

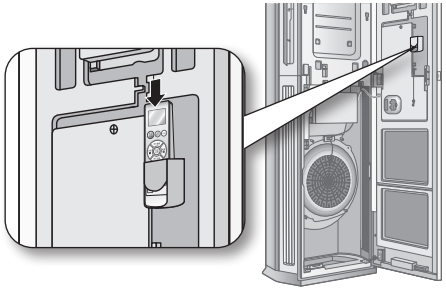
Internal protections via the unit control system

This internal protection operates if an internal fault occurs in the air conditioner.

Type	Description
Protect compressor	The air conditioner does not start operating immediately to protect the compressor of the outdoor unit after it has been started.

Storing the remote controller

When you do not use the remote controller for a long time, remove the batteries and store the remote controller in the remote controller holder.



TROUBLESHOOTING

Refer to the following chart if the air conditioner operates abnormally. This may save time and unnecessary expenses.

PROBLEM	SOLUTION
The air conditioner does not operate immediately after it has been restarted.	• Because of the protective mechanism, the appliance does not start operating immediately to keep the unit from overloading. The air conditioner will start in 3 minutes.
The air conditioner does not work at all.	• Check if the circuit breaker is switched off. • Check if there is a power failure. • Check your fuse. Make sure it is not blown out.
The temperature does not change.	• Check if you selected Fan mode. Press the **Mode** button on the remote controller to select another mode.
The cool air does not come out of the air conditioner.	• Check if the set temperature is higher than the current temperature. Press the **Temp** ▽ or △ button on the remote controller to change the set temperature. Press the **Temp** ▽ or △ button to increase or decrease the temperature. • Check if the air filter is blocked by dirt. Clean the Air filter every two weeks. • If the air conditioner has just been turned on or the indoor temperature reaches the desired temperature, only fan will operate around 3 minutes for the product protection.
The fan speed does not change.	• Check if you selected Comfort care or Dry mode. The air conditioner automatically adjusts the fan speed to Auto in Comfort care/Dry mode.
Timer function does not set.	• Check if you press the **Set/Cancel** button on the remote controller after you have set the time.
Odors permeate in the room during operation.	• Check if the appliance is running in a smoky area or if there is a smell entering from outside. Operate the air conditioner in Fan mode or open the windows to air out the room.
The air conditioner makes a bubbling sound.	• A bubbling sound may be heard when the refrigerant is circulating through the compressor. Let the air conditioner operate in a selected mode.
Water is dripping from the air flow blades.	• Check if the air conditioner has been cooling for an extended period of time with the air flow blades pointed downwards. Condensation may generate due to the difference in temperature.
Remote controller is not working.	• Check if your batteries are depleted. • Make sure batteries are correctly installed. • Make sure nothing is blocking your remote control sensor. • Check that there are strong lighting apparatus near the air conditioner. Strong light which comes from fluorescent bulbs or neon signs may interrupt the electric waves.
Error is indicated.	• Contact the service center when the following errors are indicated. E1-03, E1-21, E1-22, E1-54, E1-62, E1-63, E1-93, E1-94

OPERATION RANGES

The table below indicates the temperature and humidity ranges the air conditioner can be operated within. Refer to the table for efficient use.

MODE	OPERATIONAL TEMPERATURE		INDOOR HUMIDITY	IF OUT OF CONDITIONS
	INDOOR	OUTDOOR		
COOLING	18℃ to 32℃	21℃ to 54℃	80% or less	Condensation may occur on the indoor unit with risk to have either water blow off or drops on the floor.
DRYING	18℃ to 32℃	21℃ to 54℃	-	Condensation may occur on the indoor unit with risk to have either water blow off or drops on the floor.

If the cooling operation is used at over 32℃(indoor temperature), it does not cool at its full capacity.

SAFETY PRECAUTIONS

Carefully follow the precautions listed below because they are essential to guarantee the safety of the equipment.

WARNING

- ***Always disconnect the air conditioner from the power supply before servicing it or accessing its internal components.***
- ***Verify that installation and testing operations are performed by qualified personnel.***
- ***Verify that the air conditioner is not installed in an easily accessible area.***

GENERAL INFORMATION

- Carefully read the content of this manual before installing the air conditioner and store the manual in a safe place in order to be able to use it as reference after installation.
- For maximum safety, installers should always carefully read the following warnings.
- Store the manual in a safe location and remember to hand it over to the new owner if the air conditioner is sold or transferred.
- This manual explains how to install an indoor unit with a split system with two SAMSUNG units. The use of other types of units with different control systems may damage the units and invalidate the warranty. The manufacturer shall not be responsible for damages arising from the use of non compliant units.
- The manufacturer shall not be responsible for damage originating from unauthorized changes or the improper connection of electric and hydraulic lines. Failure to comply with these instructions or to comply with the requirements set forth in the "Operating limits" table, included in the manual, shall immediately invalidate the warranty.
- The air conditioner should be used only for the applications for which it has been designed: the indoor unit is not suitable to be installed in areas used for laundry.
- Do not use the units if damaged. If problems occur, switch the unit off and disconnect it from the power supply.
- In order to prevent electric shocks, fires or injuries, always stop the unit, disable the protection switch and contact SAMSUNG's technical support if the unit produces smoke, if the power cable is hot or damaged or if the unit is very noisy.
- Always remember to inspect the unit, electric connections, refrigerant tubes and protections regularly.
  These operations should be performed by qualified personnel only.
- The unit contains moving parts, which should always be kept out of the reach of children.
- Do not attempt to repair, move, alter or reinstall the unit. If performed by unauthorized personnel, these operations may cause electric shocks or fires.
- Do not place containers with liquids or other objects on the unit.
- All the materials used for the manufacture and packaging of the air conditioner are recyclable.
- The packing material and exhaust batteries of the remote controller(optional) must be disposed of in accordance with current laws.
- The air conditioner contains a refrigerant that has to be disposed of as special waste. At the end of its life cycle, the air conditioner must be disposed of in authorized centers or returned to the retailer so that it can be disposed of correctly and safely.

INSTALLING THE UNIT

- **IMPORTANT**: When installing the unit, always remember to connect first the refrigerant tubes, then the electrical lines. Always disassemble the electric lines before the refrigerant tubes.
- Upon receipt, inspect the product to verify that it has not been damaged during transport. If the product appears damaged, DO NOT INSTALL it and immediately report the damage to the carrier or retailer (if the installer or the authorized technician has collected the material from the retailer.)

- After completing the installation, always carry out a functional test and provide the instructions on how to operate the air conditioner to the user.
- Do not use the air conditioner in environments with hazardous substances or close to equipment that release free flames to avoid the occurrence of fires, explosions or injuries.
- Our units must be installed in compliance with the spaces indicated in the manual to ensure either accessibility from both sides or ability to perform routine maintenance and repairs. The units' components must be accessible and that can be disassembled in conditions of complete safety either for people or things. For this reason, where it is not observed as indicated into the manual, the cost necessary to reach and repair the unit (in safety, as required by current regulations in force) with slings, trucks, scaffolding or any other means of elevation won't be considered in-warranty and charged to end user.

POWER SUPPLY LINE, FUSE OR CIRCUIT BREAKER

- Always make sure that the power supply is compliant with current safety standards. Always install the air conditioner in compliance with current local safety standards.
- Always verify that a suitable grounding connection is available.
- Verify that the voltage and frequency of the power supply comply with the specifications and that the installed power is sufficient to ensure the operation of any other domestic appliance connected to the same electric lines.
- Always verify that the cut-off and protection switches are suitably dimensioned.
- Verify that the air conditioner is connected to the power supply in accordance with the instructions provided in the wiring diagram included in the manual.
- Always verify that electric connections (cable entry, section of leads, protections…) are compliant with the electric specifications and with the instructions provided in the wiring scheme. Always verify that all connections comply with the standards applicable to the installation of air conditioners.

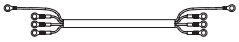
⚠ CAUTION

- ***Make sure that you earth the cables.***
  - ***Do not connect the earth wire to the gas pipe, water pipe, lighting rod or telephone wire. If earthing is not complete, electric shock or fire may occur.***
- ***Install the circuit breaker.***
  - ***If the circuit breaker is not installed, electric shock or fire may occur.***
- ***Make sure that the condensed water dripping from the drain hose runs out properly and safely.***
- ***Install the power cable and communication cable of the indoor and outdoor unit at least 1m away from the electric appliance.***
- ***Install the indoor unit away from lighting apparatus using the ballast.***
  - ***If you use the wireless remote controller, reception error may occur due to the ballast of the lighting apparatus.***
- ***Do not install the air conditioner in following places.***
  - ***Place where there is mineral oil or arsenic acid. Resin parts flame and the accessories may drop or water may leak. The capacity of the heat exchanger may reduce or the air conditioner may be out of order.***
  - ***The place where corrosive gas such as sulfurous acid gas generates from the vent pipe or air outlet. The copper pipe or connection pipe may corrode and refrigerant may leak.***
  - ***The place where there is a machine that generates electromagnetic waves. The air conditioner may not operate normally due to control system.***
  - ***The place where there is a danger of existing combustible gas, carbon fiber or flammable dust. The place where thinner or gasoline is handled. Gas may leak and it may cause fire.***

ACCESSORY PARTS LIST

❊ **Product illustration may look different from the actual product.**

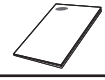
Connection Parts

No.	Part Name	Quantity	Remarks
1	Drain hose	1	Piping Box
2	Connection pipe & insulation ø6.35mm (1/4")	1	
3	Connection pipe & insulation ø15.88mm (5/8")	1	
4	Connection wire (4 strand) 	1	
5	Finishing tape	2	

Others

No.	Part Name	Quantity	Remarks
6	Putty	1	Piping Box
7	Rubber leg	4	
8	Cable tie	8	
9	pipe	1	
10	Vinyl tape (W19 X 5m)	1	
11	Rubber cabi hole	1	
12	Holder pipe	1	
13	M4 X L25 screws	6	

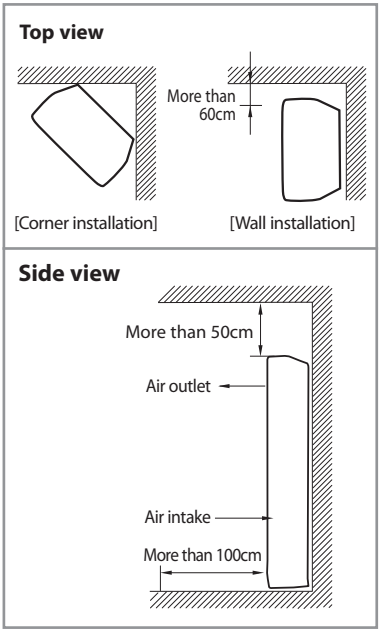
Others

No.	Part Name	Quantity	Remarks
1	Fixing bracket for indoor unit	2	Indoor Unit
2	Remote controller	1	
3	M4 X L12 screws	8	
4	Batteries for remote controller	2	
5	Protective piping cover	1	
6	Cable tie	1	
7	User & Installation manual 	1	

SELECTION OF INSTALLATION PLACE

Indoor Unit

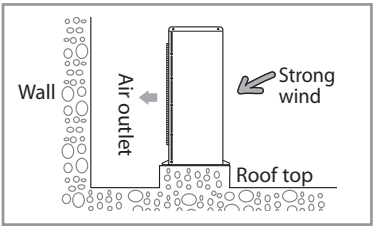
- ◆ Install the unit at a place close to the wall facing the outside as it is necessary to perform piping connection with the outdoor unit.
  - It is effective to install the unit at a window side to ensure uniform distribution of indoor temperature.
- ◆ Install the unit at a place where there is no obstacle against the wind around the air intake and air outlet.
- ◆ Install the unit horizontally at a stable, rigid place. (When installing the unit at a place subjected to oscillation, noise may occur.)
- ◆ Avoid a place near the door which is frequented by people.
- ◆ Avoid a place subject to direct sunlight.



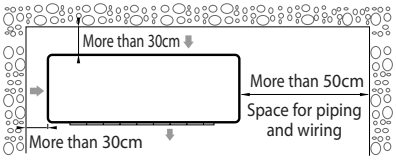
Outdoor Unit

- ◆ A place free from the risk of combustible gas leakage.
- ◆ A place which can bear the weight of the unit.
- ◆ A place which can bear the fixing strength of the outdoor unit.
- ◆ Avoid a place subject to oil (including machine oil).
- ◆ Avoid a saline place.
- ◆ Avoid a place subject to sulfide gas (hot spring zone). (When installing the unit at such special environmental conditions, it may cause machine trouble. When it is unavoidable to use such places. It requires special maintenance.)
- ◆ A place where the discharge air and noise of the outdoor unit do not disturb the neighborhood. (Take special care not to cause any inconvenience to your neighbors when installing the unit on the borderline with your neighborhood.)
- ◆ A place where strong wind does not head against the air outlet of the outdoor unit. (If a strong wind heads directly against the air outlet at the time of cool operation, a safety device can be operated.)
- ◆ Do not install the outdoor unit at an unstable place such as outer wall of an apartment or building. The outdoor unit may fall down, causing severe personal or property damage or loss.

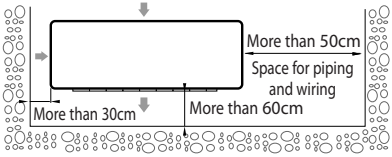
※ If there is any unavoidable reason to install the unit at such a place, take the following measures against the wind;
1. When installing the unit at a roadside concentrated with buildings, install it parallel with the road.
2. Install the unit so that the air outlet faces toward the wall at a place such as rooftop, which may be subjected to strong wind.



◆ The outdoor unit should be installed in accordance with the service space.



The air intake faces toward the wall.



The air outlet faces toward the wall.

ELECTRICAL WORK

The electrical work should be performed by a specialist qualified for the work.

◆ Use the three phase power supply, and be sure to install the sub power distributing board for exclusive use with the unit (separately purchased by the user).

※ Avoid multiple connecting wiring as it can cause a drop in voltage, thus resulting in poor performance of the automatic control circuit.

◆ Be sure to install circuit breaker (separately purchased by the user).

◆ Be sure to connect the grounding wire.

Wiring Standard

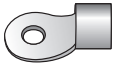
ITEM		SPEC
Power		Single phase 220-240V~, 50Hz
Circuit Breaker		30A
Electric wire	Below 20m	2.5mm^2
	Below 50m	4mm^2
Allowable voltage		180V~253V

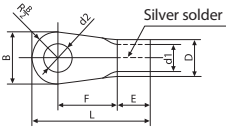
CAUTION

◆ ***You must compress the solderless ring to the cable and then connect it to the main power terminal.***

◆ ***Solderless ring selection***

Thickness of cable(mm^2)	B(mm)	d2(mm)
2.5	Less than 9.5	More than 4.5
4	Less than 9.5	More than 4.5

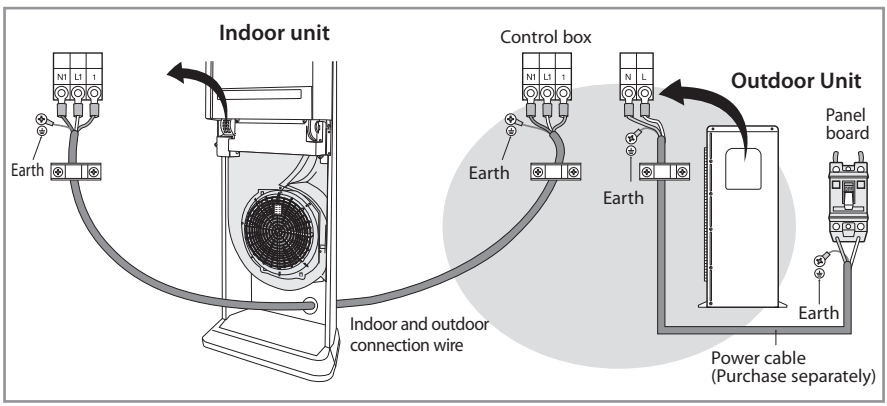




Indoor and Outdoor Connection Wiring

◆ When connecting the wiring harness between the indoor and outdoor unit, align the outdoor side and the indoor side with the terminal board No.

※ When the wiring harnesses of the indoor and outdoor unit are not properly connected, it may cause trouble.
Be careful not to allow the indoor and outdoor wirings and power lines to get in contact with the service valve of the refrigerant system or to the pipe without an insulation.



Electrical Wiring

1. Connect it to the terminal board N and L for power cable to the outdoor unit.
   In so doing, peel off the end of the power cord by about 5mm, and press the cord to the ring terminal for hooking.
   - Make sure to install exclusive power supply.
     ❊ If you use multiple connecting, there is a risk of electric shock or fire.
   - If the outdoor power supply has been selected, install circuit breaker(ELCB).
     (Purchase separately)
   - Make sure to connect earth wire.
   - Make sure that the clamping force of the screw (on the terminal) is tightened firmly within the range of rated tightening torque.

Connecting the power terminal

◆ Connect the cables to the terminal board using the compressed ring terminal.
◆ Use rated cables only and make sure to fix them without applying any external force to the terminal.
◆ Connect the cables with driver and wrench that can apply the rated torque to the screws.
◆ Make sure that appropriate tightening torque is applied for cable connection. If the terminal is loose, arc heat may occur and cause fire and if the terminal is connected too firmly, terminal may get damaged.

Screw	Tightening torque (kgf•cm)
M3	5.0~6.0
M3.5	8.0~10.0
M4	12.0~15.0
M5	20.0~25.0
M6	25.0~30.0

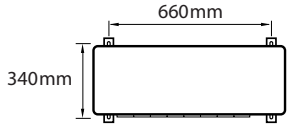
INSTALLATION METHOD

Outdoor Unit

When using the anchor bolt

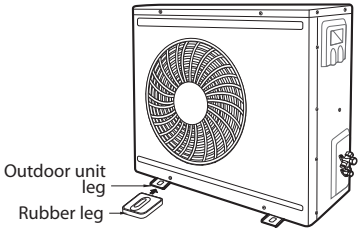
1. Fix the unit on a flat, rigid floor using the anchor bolt.
   (Anchor bolt : M10 x 4 points - separately purchased)

Anchor bolt fixing dimensions



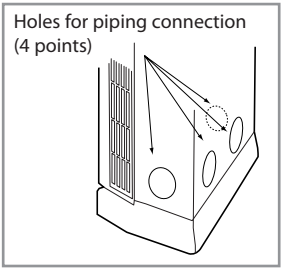
When using the rubber leg

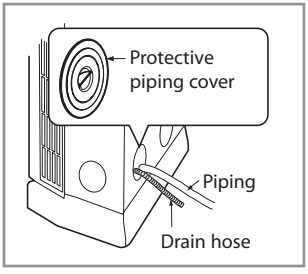
1. Put the rubber leg to the outdoor unit leg.



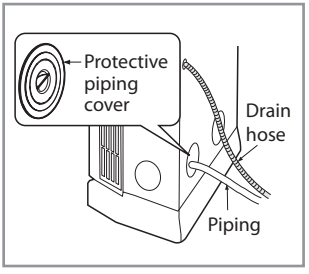
Installation Procedures

1. The piping of this unit can be connected to the right, left, and rear side.
   When you hit the area for piping connection slightly with a hammer, a hole is made.





When the hole on the wall is lower than the hole for piping connection.



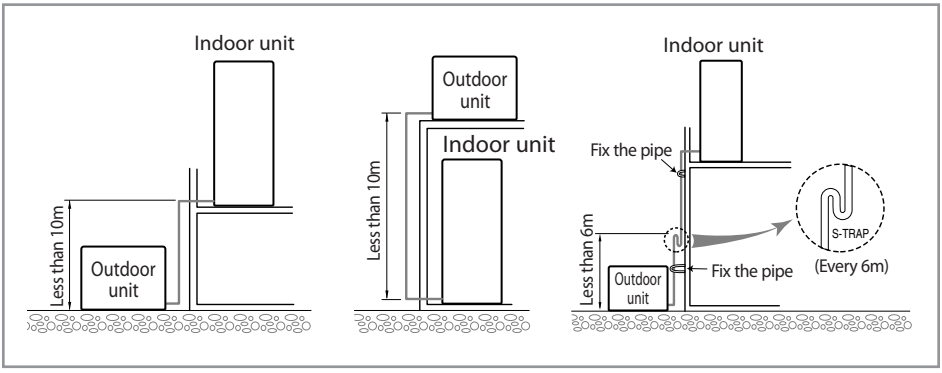
When the hole on the wall is higher than the hole for piping connection.

2. Open the front panel and separate it from the unit.
   - Be careful of the power lines connected to control panel when removing.
3. Bend the connection pipe to an appropriate length using the spring bender depending upon the installation place.
   - Allowable pipe length : Maximum 15m
   - Allowable pipe drop distance : Maximum 10m
   - Make no more than ten bending points on the pipe

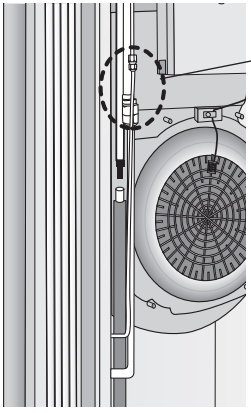
※ When the pipe length is in excess of the standard pipe length of 5m, add the refrigerant (R22) of 30g for each additional 1m.

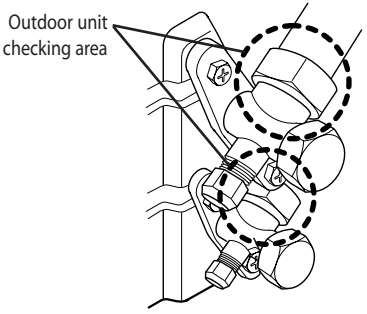
⚠ CAUTION

If the pipe is lengthened, the performance of the unit is degraded, and the service life is shortened. Therefore, the pipe length should be as short as possible (less than 15m).



4. Install the high pressure pipe to the heat exchanger liquid pipe, and the low pressure pipe to the heat exchanger gas pipe respectively using the flare nut, taking care not to cause any leakage of refrigerant.
5. Be sure to insulate the pipe with appropriate insulation material.
6. Insert the extension drain hose to the drain connection port tightly, then fix them with a cable tie or a tape to prevent any water leakage; refer to page 46.
7. After completion of the installation, check the connecting area for any gas leakage.
8. Wind a finish tape when the wiring of the refrigerant pipe, the unit, and the drain piping are completed.
9. Fix the piping and drain hose by using the indoor unit piping holder.



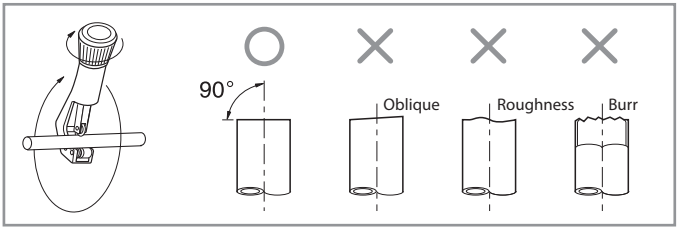


INSTALLATION METHOD

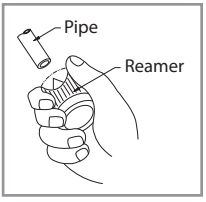
Connection of Refrigerant Piping

Flare Processing

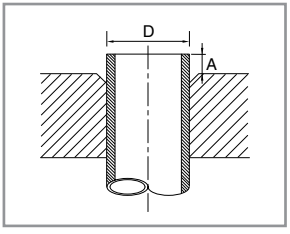
1. Cut the pipe using the pipe cutter.



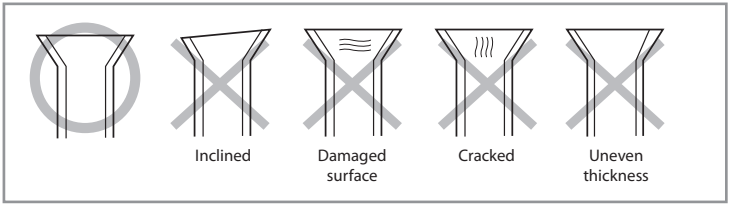
2. Remove burr on the edge of pipe.
   - If burr is not removed after cutting the pipe, there is a risk of refrigerant gas leakage.
   - If foreign substance such as burr goes into the pipe, there is a risk of product breakdown.
     Face the pipe downward when doing the work.



3. Insert the flare nut into the pipe, and then perform the flare processing.



Outer Diameter(D)	A(mm)
ø 6.35mm	1.3
ø 15.88mm	2.2

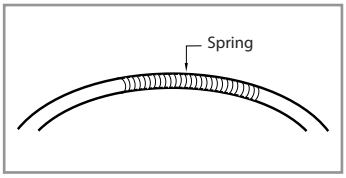


WARNING

When installing, make sure there is no leakage. When recovering the refrigerant, ground the compressor first before removing the connection pipe. If the refrigerant pipe is not properly connected and the compressor works with the service valve open, the pipe inhales the air and it makes the pressure inside of the refrigerant cycle abnormally high. It may cause explosion and injury.

Pipe Bending

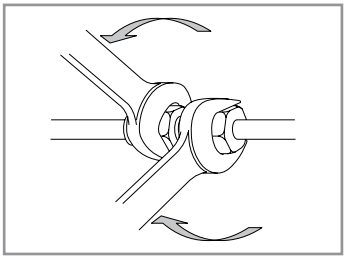
1. Perform bending of the pipe using the bender which has a specified bending radius.
2. Be sure to take full care to perform bending of the pipe successfully at one time. Bending and unbending the pipe more than twice makes the bending work increasingly difficult.
3. You may use the spring inserted into the gas pipe instead of the bender to bend the pipe.
4. When you bend the pipe using the spring, hold the pipe with both hands to prevent any distortion, and secure a minimum bending radius of more than 100mm.



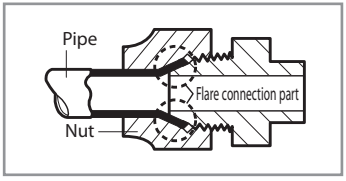
Tightening of Connection Parts

◆ Align the pipes to be connected and tighten the flare nuts first manually and then with a torque wrench, applying the following torque.

Outer Diameter	Torque (kgf•cm)
ø 6.35mm	140~170
ø 15.88mm	440~480

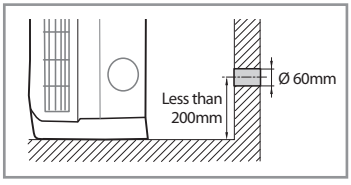


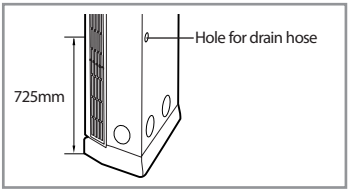
◆ You can avoid of gas leakage by applying refrigerant oil on the flare connection part.



Drilling a Hole in the Wall

◆ Drill a hole of 60mm in diameter to the outside.
◆ The drilling should be done at a distance of less than 200mm from the floor facing the indoor unit.
※ If a hole on the wall is above 200mm from the floor, use a hole for drain hose (ø35mm) for connecting drain hose.



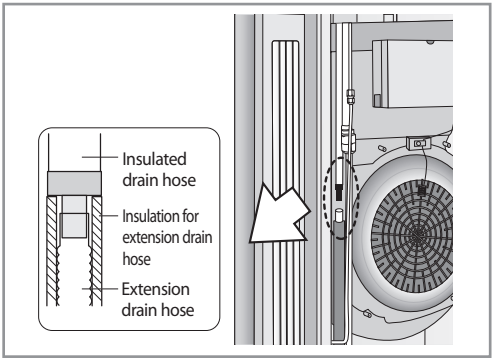


INSTALLATION METHOD

Drain Hose

1. Connect the drain hose by inserting the extension drain hose to the drain connection port tightly.
2. Insulate the extension drain hose, then fix it with a cable tie or a tape.

Piping Material	Vinyl Chloride(Inner diameter ø18mm)
Insulation	Foamed Polyethylene



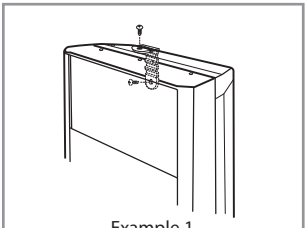
CAUTION

- ***As the draining is of natural drain type, make the drain hose direct downward.***
- ***Fix the drain hose tightly to prevent any water leakage.***
- ***If there is any foreign substance in the drain plate, it may clog the drain pipe. Therefore, be sure to remove the foreign substance inside after installation.***
- ***Do not extend the drain hose.***

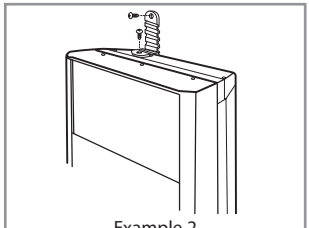
Fixing the Indoor Unit

- If the indoor unit is installed on unstable place, it may shake or fall down. To prevent these accidents, you must fix the top of the indoor unit tightly with fixing brackets.

Wall Installation

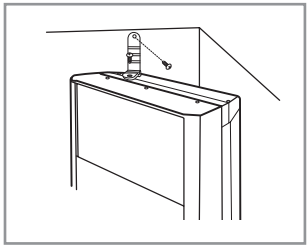


Example 1



Example 2

Corner Installation

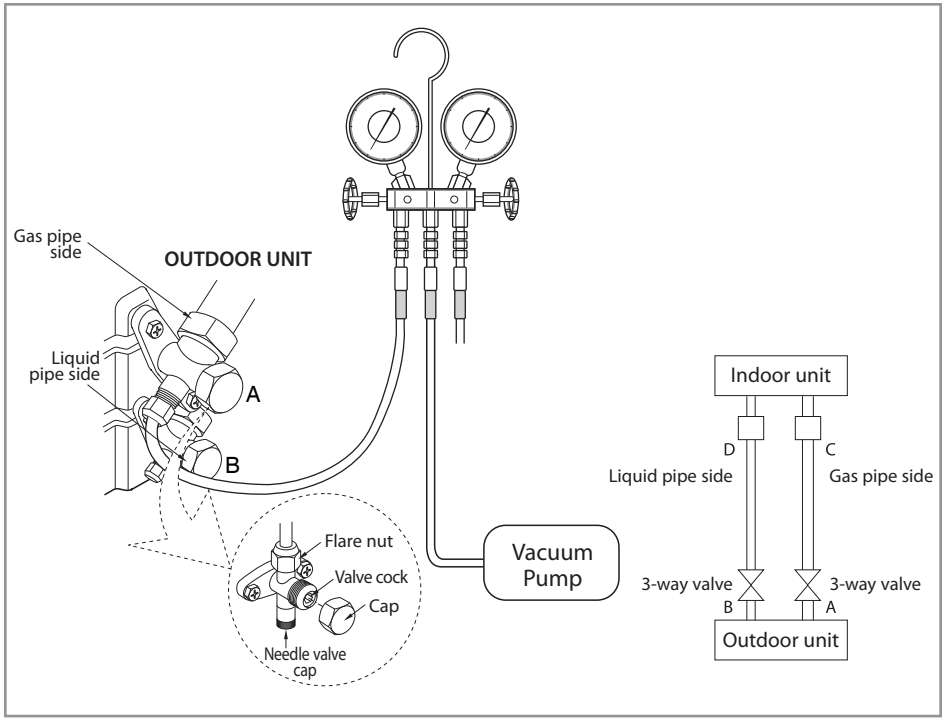


AIR PURGE

※ Be sure that all valve cocks are closed.

◆ The air in the indoor unit and in the pipe must be purged. If air remains in the refrigeration pipes, it will affect the compressor, reduce to cooling capacity and could lead to a malfunction. Use Vacuum Pump as shown at the figure.

1. Connect each assembly pipe to the appropriate valve on the outdoor unit and tighten the flare nut.
2. Connect the charging hose of low pressure side of manifold gauge to the packed valve having a service port as shown at the figure.
3. Open the valve of the low pressure side of manifold gauge counter-clockwise.
4. Purge the air from the system using vacuum pump for about 10 minutes.
   - Close the valve of the low pressure side of manifold gauge clockwise.
   - Turn off the vacuum pump.
   - Make sure that pressure gauge show -0.1MPa(-76cmHg) after about 10 minutes.
   - This procedure is very important in order to avoid gas leak.
   - Remove the hose of the low pressure side of manifold gauge.
5. Set valve cork of both liquid side and gas side of packed valve to the open position.
6. Mount the cap and the needle valve cap to the valve (see the below illustration), and tighten them at the torque of 183kgf•cm with a torque wrench.
7. Check for gas leakage.
   - At this time, especially check for gas leakage from the 3-way valve's stem nuts, and from the service port cap.



REFRIGERANT CHARGING

Air purge(at the time of new installation only)

↓

Close the gas pipe side valve by turning it clockwise.
Connect the pressure gauge to the low pressure side service valve, and then open the gas pipe side valve again.

↓

Connect it to the refrigerant filling tank.

↓

Start cooling operation.

↓

Check the pressure of the pressure gauge.
Check whether the low pressure side is within the range of 4.5~5.6kg/cm^{2}G
(outside temperature 35℃).

↓

Open the tank and refill the refrigerant until arriving at the proper pressure.
(Refill the refrigerant slowly checking the pressure.)

↓

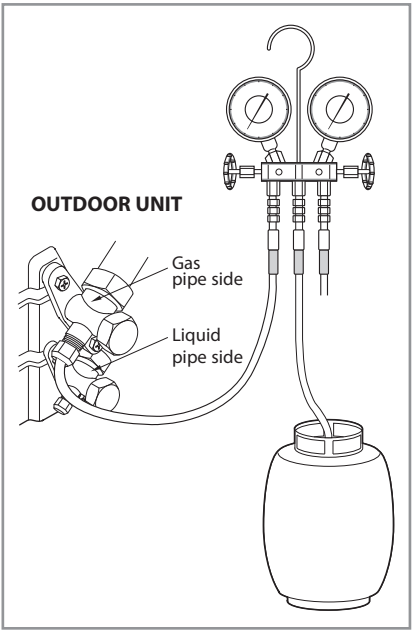
Stop operation.

↓

Close the gas pipe side valve, and loosen the pressure gauge connected.
Then open the gas pipe side valve again.

↓

Tighten the cap of each valve using a specified tool.



CAUTION

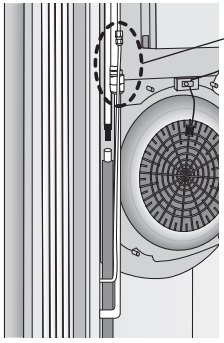
- ***Always use R22 refrigerant to avoid damage of the unit or an explosion.***
- ***Must keep the quantity of refrigerant by using a balance. Do not use a manometer or not depend on your experiences.***

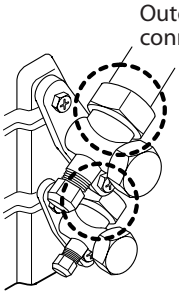
CHECK AND TEST OPERATION

Check

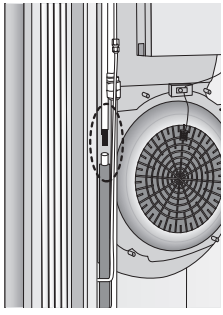
◆ Be sure to check the following again after completion of installation.

1. Check the piping connection area for any gas leakage.

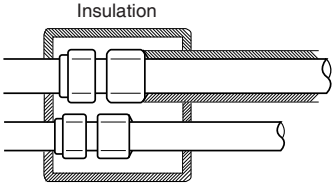




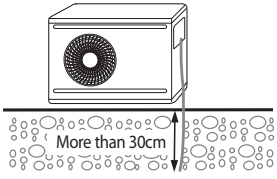
2. Is the drain hose properly connected?



3. Is the insulation of the piping in good condition?



4. Is grounding properly made?



CHECK AND TEST OPERATION

Test Operation

◆ After checking, read the owner's instructions carefully, and perform a test operation.
Then deliver the unit to the customer.
(When delivering the unit, be sure to read carefully and follow the contents of the owner's instructions.)

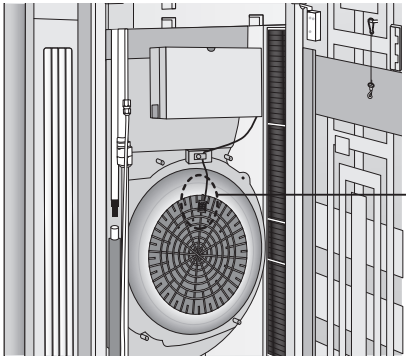
◆ Check if the indoor/outdoor unit's connection wires are properly connected.

1. Turn on the air conditioner and select Cool mode. (Test is only available in cooling operation.)
   - Check if the cool air comes out from the indoor unit.
   - Check if the fan of outdoor unit rotates.
2. If the units don't work as above, check if the indoor/outdoor unit's connection wires are properly connected.
   The connection wires should be properly connected to the correct terminal number.

⚠ CAUTION

1. Be sure to check whether the service valve is open before attempting to perform the test operation.
2. Be sure to perform the test operation after installation.
   It is easy to start the test operation in winter if you increase the sensor temperature to 23°C ~ 25°C by holding the indoor temperature sensor. (Cooling operation)

※ When the outdoor temperature is below zero, do not test operation for more than 3 minutes. Otherwise, the compressor will be damaged.

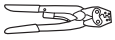


Pump Down Procedure (When removing the product)

1. Turn on the air conditioner and select Cool mode to run the compressor for 3 minutes.
2. Release the valve caps on High and Low pressure side.
3. Use L wrench to close the valve on the high pressure side.
4. Approximately 2 minutes after, close the valve on the low pressure side.
5. Stop operation of the air conditioner.
6. Disconnect the pipes.

HOW TO CONNECT YOUR EXTENDED POWER CABLES

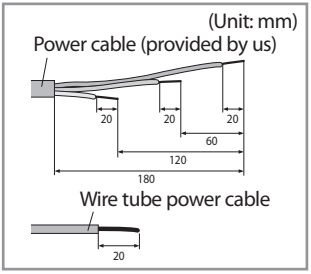
※ Items to prepare
(compressor and insulation tape should be prepared by an installation technician.)

Tools	Crimping plier	Connection sleeve (mm)	Insulation tape	Contraction tube (mm)
Spec	MH-14	20xØ7.0(HxOD)	Width 18mm	50xØ8.0(LxOD)
Shape				

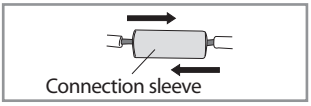
1. As shown in the figure, peel off the shields from the rubber/wire of the power cable.
   - Peel off 20 mm of the wire shields of the tube installed already.

CAUTION

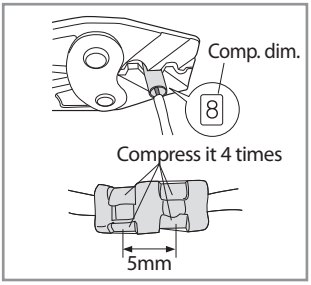
After peeling off the tube wire, you must insert a contraction tube.



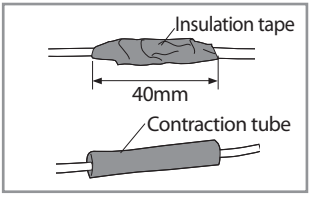
2. Insert both sides of core wire of the power cable into the connection sleeve.



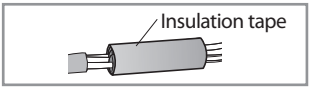
3. Using a compressor, compress the two points and flip it over and compress another two points in the same location.
   - The compression dimension should be 8.0.
   - After compressing it, pull both sides of the wire to make sure it is firmly pressed.



4. Wrap it with the insulation tape twice and position your contraction tube in the middle of the insulation tape.
5. Apply heat to the contraction tube to contract it.

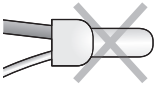


6. After tube contraction work is completed, wrap it with the insulation tape to finish.



WARNING

In case of extending the electric wire, please DO NOT use a round-shaped pressing socket.
- Incomplete wire connections can cause electric shock or a fire



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